

Meanings Emerging in Practice for Linguistically and Culturally Diverse Students: An Early Years Multiliteracies Project

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Abstract

This paper reviews the characteristics of changing education in new times (Castells, 2000, 2001; McNaughton, 2002). It draws attention to the complex nature of teachers' work when working with linguistically and culturally diverse populations in an era of new literacies and new technologies. Attention is turned to one teacher, Mrs Jessie Alexander (pseudonym), as she implements a multiliteracies project within her culturally and linguistically diverse early-years classroom. The theoretical framework of the analysis draws on international work on student diversity (McNaughton, 2002) designs of meaning and components of pedagogy (New London Group, 1996, 2000; Cope & Kalantzis, 2000) and knowledge processes within multiliteracies projects (Kalantzis & Cope, 2005) to analyse Jessie's approach and its outcomes for her diverse student group. This examination highlights both the utility of Jessie's 'wide – but not vague' approach and the robustness of the theorisation of multiliteracies for meeting the needs of this group of 21st century learners.

Changing World Order and Changing Education

The social order of the Western world has changed from the early industrial society with a mass schooling model, to the developed industrial society with the Twentieth Century modern school, and then again to what is now termed the "knowledge society" (Castells, 2000, 2001). This latest social order is borne out of substantive changes in the structure of the world's economic, political, social and cultural systems at the global and local levels. Two significant interrelated shifts have considerable implications for teachers' work.

The first has been a shift from the importance of chemical and electronic-based technologies to new information technologies. These new information technologies and their new media are reshaping the way language is used. The quandary for teachers' work is "when technologies of meaning are changing so rapidly, there cannot be one set of standards or skills that constitute the ends of literacy learning" (New London Group, 1996, p. 64; see also Luke, 2000). The second significant shift revolves around changes to national and local identities which have resulted from: [1] the network society replacing individualised cottage industries; and, [2] the recognition of minority Indigenous populations as well as new immigrant groups (Castells, 2000; Gee, 2000). These changes have altered the demographics of student groups; student populations now often consist of students who are not from

communities that define the majority culture or language. They are, however, students “for whom going to school is a risky business, children for whom the early ‘meeting of minds’ between teacher and learner can make all the difference between success and failure in acquiring literacy at school” (McNaughton, 2002, p. 14). Research that investigated the disparate experiences of early years students from minority cultures in their formative years of schooling exemplifies this point. Skinner, Bryant, Coffman and Campbell (1998) found these students fared better socially and academically when teachers held high expectations of every child, even those who did not immediately conform to the student role, offered praise and used gentle means to redirect inappropriate behaviours, replaced discourses of “deficit” with discourses of “promise”, and scaffolded tasks to advance development.

The importance of new knowledges and the imperative created from the recognition of new diversities have created a challenge for learning delivery, especially in terms of content, teaching processes and its assessment. Teachers’ responses to these demands have resulted in three approaches to curriculum that Kalantzis and Cope (2005) term as traditionalist, progressivist and transformative. Each will be introduced and discussed in turn.

Changing Approaches to Curriculum

At its most simple, these three approaches to curriculum represent a historical progression, however, at its most complex, their divisions are not neatly defined. There are infinite variations across time and space.

1. The **traditional** approach was a response to the demands of the industrial society for a system of mass schooling. Despite its historical roots, this approach still endures in some education systems and moments of teaching (Kalantzis & Cope, 2005, p. 54). This approach is renowned for its peculiar didactic presentation and focus on factual models of knowing and languages as valued by the dominant group. Whilst favoured for its clear-cut right and wrong answers, predictability and transparency (Bernstein, 2000), its problematic is that truths are left unquestioned and differing perspectives and modes of meaning making rendered invisible. Moreover, this approach devalues the professionalism of the teacher who simply enacts a prescribed syllabus and submits students to standardised testing for the purpose of establishing rank.
2. The **progressivist** approach, which emerged in the post-industrial age, sought to be more inclusive by adopting a constructivist pedagogy. The focus is on building knowledge and understandings of how to learn from content relevant to students’ lives and by directing learning to where the student is “at”. Whilst teachers are able to develop curriculum, adopt a learner-centred pedagogy and assess students’ outcomes to remediate curriculum (Kalantzis & Cope, 2005), critiques of this approach are extensive: [1] subject offerings have increased exponentially, as has teacher workloads; [2] transparency and predictability of curriculum is reduced, meaning students’ unfamiliarity reduces the benefit of their applications (Bernstein, 2000); [3] students are not necessarily expected to be critical users of text (New London Group, 1996); [4] students’ beliefs become the reference point for knowledge making, meaning in actuality, they could spend excessive time pursuing the “wrong leads” (New London Group, 1996); [5] knowledge is not put into action, thus students’ capabilities for reflexively enacting their knowledge in

practice is not always harnessed (New London Group, 1996); [6] the unitary view that teaching needs to commence from where the individual student is “at” simply locates them on “a single, predetermined, sequence of literacy development” and thus fails to provide for engagement of difference (McNaughton, 2002); and [7] the requirement of one cultural and linguistic standard rather than valuing students’ differences as assets.

3. The **transformative** approach maintains the strengths of the traditional and progressivist curricula, while ameliorating some of their more notable weaknesses. In this approach teachers are not simply technocrats who produce docile, compliant workers. Rather the focus is on students developing “the capacity to speak up, to negotiate, and to be able to engage critically with the conditions” of their lives in these complex new times (New London Group, 1996, p. 67). Such a focus is not just for the betterment of “minorities”.

....[S]uch a pedagogical orientation will produce benefits for all. For example, there will be a cognitive benefit to all children in a pedagogy of linguistic and cultural pluralism, including for “mainstream” children. When learners juxtapose different languages, discourses, styles, and approaches, they gain substantively in meta- cognitive and meta-linguistic abilities and in their ability to reflect critically on complex systems and their interactions. (New London Group, 1996, p. 69)

Core to the transformative approach is the purposeful construction of a community of practising learners, an approach that has strong parallels with the internationally acclaimed Reggio Emilia philosophy of early years schooling (see Exley, 2007). Interpretations of the New London Group’s (1996) transformative approach have been trialled in a range of year levels with over a hundred teachers from Australia (Kalantzis & Cope, 2005), Malaysia (Samuel, 2002; Kalantzis & Cope 2005) and South Africa (Newfield & Stein, 2000). Central to teachers’ practice has been the acknowledgement of multiple designs of meaning, in particular, linguistic, audio, spatial, gestural and visual design, and the theorisation of four components of pedagogy that are both non-hierarchical and non-linear: situated practice, overt instruction, critical framing and transformed practice. Each component is described briefly below (New London Group, 2000, p. 35).

Situated Practice:	immersion in experience and the utilisation of available Designs of meaning, including those from the student’s lifeworlds and simulation of the relationships to be found in workplaces and public spaces.
Overt Instruction:	systematic, analytic, and conscious understanding of Designs of meaning and Design processes...This requires the introduction of explicit metalanguages, which describe and interpret the Design elements of different modes of meaning.
Critical Framing:	interpreting the social and cultural contexts of particular Designs of meaning. This involves the students standing back from what they are studying and viewing it critically in relation to its context.
Transformed Practice:	transfer in meaning-making practice, which puts the transformed meaning to work in other contexts or cultural sites.

These four components of pedagogy may occur simultaneously, whilst at other times, one or two may dominate. All of them are repeatedly revisited at different levels throughout the course of a project (see example unit outlines, Kalantzis, Cope & Fehring, 2005, p. 6-7).

In their more recent work, Kalantzis and Cope (2005) identify the knowledge processes explored throughout the four components of pedagogy: **experiencing** the *known* and *new*; **conceptualising** by *naming* and *theorising*; **analysing** *functionally* and *creatively*; and, **applying** *appropriately* and *critically*. Like the four components of pedagogy, the knowledge processes may occur simultaneously, whilst at other times, one may dominate. Important to this theorisation is the movement from students **experiencing** the *known* and moving through to the *new* (Kalantzis & Cope, 2005). Allowing students to recontextualise (Bernstein, 2000) the resources of their life world to the classroom promotes what McNaughton (2002) terms as “continuity”, an approach that recognises young children arrive at school already being expert users of a range of texts. “Effective connections for the learner happen when the activities in an (often unfamiliar) instructional programme incorporate features of some familiar expertise that up until then have been situated in out-of-school activities” (McNaughton, 2002, p. 27). Like the learning of the progressivist curriculum, making students’ multiple knowns explicit unmasks the social and cultural world of the student and thus their “zone of proximal development” (Vygotsky, 1978). Teachers can glean these understandings in the situated practice phase of a project to ensure activities and texts chosen do not outstrip students’ background knowledge and current language skills (McNaughton, 2002, p. 131). Students typically develop *naming* and *theorising* **conceptions** in the overt instruction phase (Kalantzis & Cope, 2005). The critical framing component engages students with the knowledge process of **analysing** *functionally* and *critically*, elements not evident in the progressivist approach. This component includes an analytical and critical interpretation of the social and cultural context of knowledge (Kalantzis & Cope, 2005). The transformed practice component makes space for *appropriate* and *creative* **application** of integrated knowledge in new contexts or cultural sites.

This overview, above, names and theorises three curriculum approaches. In the next section, Jessie Alexander’s approach to curriculum for her early years linguistically and culturally diverse students is recounted and theorised. Jessie is an experienced teacher, aged in her late thirties, who “couldn’t image doing anything else but teaching”. Jessie teaches at City Park State Primary School (pseudonym), a mid-sized government institution located within an inner-city suburb of Brisbane, Queensland, Australia. City Park State Primary School was established in the 1880s and today has a population of 500 students, necessitating multiple drafts of each year level. The last five years has seen City Park and its surrounding middle-class suburbs become home to thousands of African refugee families. In 2006 approximately two dozen nationalities were represented at the school. Many of the newcomers only speak languages other than English, and only have informal learning experiences gained from their years as itinerant members of isolated refugee camps. Jessie’s challenge was to make schooling relevant to her “mainstream” students as well as the newly arrived immigrants. Her reflection on her curriculum, pedagogy and assessment practice was generated via a day long semi-structured interview with me, a university researcher who had introduced Jessie to multiliteracies pedagogy, and attended class

to work with groups of students on the ICT component of a project on at least a dozen occasions. The use of a semi-structured interview captured Jessie's retrospective snapshot of her reflections of one multiliteracies project "Why are rainforests important and how do they operate?"

Curriculum content

In the following, Extract One, Jessie talks about the initial planning phases of the "Rainforests" project undertaken with her teaching colleagues at City Park State Primary School.

Extract One	
JESSIE:	We started with an inquiry question. With rainforests it was "Why are rainforests important and how do they operate?". Then there is a sub-inquiry and we break it up into the key learning areas and make sure we are covering English, SOSE [Studies of the Society and Environment] and Science. We talk about what we want the students to know and what we want them to do. We also talk about a culminating task and assessment. We ask, "Are they linked and have we got the right amount to cover in the period of time?" Rainforests was nine weeks.
BERYL:	Do what you want children to know and do get negotiated with the students?
JESSIE:	I do it on two levels. I participate in discussions with the teachers and then when I'm working with the students, if something extra comes up that we feel should be covered, then I add that in and tell the other teachers. The planning is a proposal for a way forward and the actual decisions get reshaped after discussions with the children... I like to negotiate with the children as well. I like to see what interests them, get more ideas, see what links to their real world experiences. While I plan the overarching design of the project, what gets taken up gets reshaped along the way. I'd rather do something that was interesting and motivating because then I feel as though I have more chance of getting them all involved.

Jessie and her teaching counterparts show signs of enacting a transformative approach. Their planning is transparent, tasks are linked throughout the components of pedagogy and students are genuinely valued as co-planners. It is this sense of belonging, that is, the engagement of their subjectivity and identity, which builds a strong base for effective learning. Another feature of their planning is what McNaughton (2002) calls the "wide – but not vague - curricula", that is, non-specific curricula that is still clear, well designed and harnesses the interdisciplinary nature of knowledge. Evident within Jessie's talk is the focus she and her colleagues have on providing time and space for deep engagement with knowledge. As can be seen in later extracts, this focus increases their capability to facilitate academically complex tasks that recognise and value diversity.

Pedagogy

Conscious of the limitations of an experiential learning model where students are not extended past their knowledge boundaries, Jessie co-designs learning experiences where students are involved with **experiencing** the *new*, **conceptualising** by *naming* and *theorizing* and **analysing** *functionally* and *critically*.

In the early stages of the project, small group and whole class discussions are held. This situated practice component encourages students to reveal their **known**, whilst other students are **experiencing** something **new**. The range of lived and vicarious experiences mean there is much diversity of knowledge within the classroom. Four of the activities that take place are introduced and examined.

Extract Two: Situated practice activity example one

JESSIE:	With the rainforests there were so many aspects, the animal life, the plant life, the environment they were from, the different sorts of rainforests in different regions of the world. Berihun* (African student, pseudonym) talked about some of the animals he had seen. Poni* (African student, pseudonym) said he'd seen a leopard. [The African students] contributed to what we were talking about. With so much diversity of experience in the classroom, we can't be centred on a temperate rainforest like the ones we have near Brisbane....Some of the students brought in rainforest books from home. We talked about the environment, all the different types of environments, and then we did a KWL [What I know ; What I want to know; What I learnt] chart about rainforests. The children learnt that rainforests have different levels, the emergents, canopy, understory and a forest floor, and if something happens in one part, that affects something in another part. They learnt there are high levels of dependency between the different parts. Rainforests are large communities that depend on an ecosystem throughout the different levels. For example, the children learnt that the birds and insects live in the emergents, insects, birds, reptiles and mammals live in the canopy, and insects live on the forest floor. They learnt that rainforests are important because they recycle and clean water, remove carbon dioxide from the atmosphere and store it in their roots, stems, leaves and branches. They also learnt about conservation, and that rainforests are important because they have the most amount of life per area than any other type of environment. We went and had a look at a temperate rainforest at Mt Nebo. We talked about conservation and saw for ourselves that it must take millions of years to rebuild because they are so complex. We looked at how rainforests are important to their lives, for the medicines, timber, rubber and all the food types they produce.
BERYL:	What lead up did you do before you went on the excursion?
JESSIE:	We shared lots of information about rainforests, we had lots of books at school. Roland* (pseudonym) went to Lamington National Park and there's a tree top walk, and they were fascinated by that and the amount of animal life. He brought back photos, he talked about them, it motivated the other children and lots of questions emerged. He was talking about the lichen and he got them all really interested. He had a little quiz where he went through and ticked all the things that he saw. That was a really good start for when we went for our rainforest walk; the buttress roots, strangler vines and lots of moss and lichen and a little part where it had been burnt by a fire. We took photos and we displayed them with descriptive words and scientific words. One of the parents burnt the pictures onto a CD so we could all access them.

Three points are worthy of comment. First, the whole class excursion exposes all students to real world texts (living texts, signs, everyday texts on-route, etc.) and creates a common experience which serves as basis of shared conversations. Second, the student-to-student communication reforms the role of the teacher and that of the students. Jessie now becomes a learning designer and manager and the students are burgeoning experts. The welcoming of students' experiences from their multiple outside-of-school experiences is one of the more endearing hallmarks of modern schooling that translates well to a transformative orientation. This situated practice component constructs students' different expertise as immediately functional for this project, helps them to feel affirmed or "recognized" (McNaughton, 2002), and places public value on their culture(s) (Cazden, 2000). Everyone's learning is more productive because of this diversity (Au, 1993). Jessie's practice serves to recast the African students as "students with promise" (cf. Skinner, Bryant, Coffman & Campbell, 1998). Finally, Jessie now knows what to incorporate next, "at least at the level of experiences and topic" (McNaughton, 2002, p. 113).

In addition to the activities recounted above students re-live their excursion to the temperate rainforest, and experience simulated differences between woodland and tropical rainforests through a range of designs for learning. The children listen to CD recordings of rainforest sounds (audio design), view colour plated images in books (visual design) and then use their bodies to mimic the characteristics of the rainforest fauna and flora (gestural design). Digital photos are taken of the body sculptures (gestural and spatial design), and annotated with descriptive vocabulary and scientific terms (linguistic design).

Extract Three: Situated practice activity example two

JESSIE:	We talked about different types of rainforests around Australia and around the world. We talked about the tropical rainforest, temperate rainforests and woodland rainforests, what makes a rainforest and how most tropical rainforests are located close to the equator, and what makes each rainforest different. We did a Venn diagram to compare and contrast the three types of rainforests so the students could theorise their commonalities and differences.
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The activity described in Extract Three makes visible students' epistemic understandings through multiple designs of learning, in this case, diagrams (spatial design) and vocabulary choice (linguistic design). Students who are not yet competent with oral language and/or printed language are supported by the use of visuals, and a semi-private rehearsal before making public contributions. Importantly, in Jessie's classroom, concept mapping (spatial and linguistic design) is given equal status to written text for showing constructs about the organisation of content knowledge.

Another activity undertaken by the students is poetry writing. Extract Four, below, recounts Jessie's description of Two Word Wonders and Syllable Poems, both of which stem from an integrated science and visual arts lesson where the students paint rainforest pictures.

Extract Four: Situated practice activity example three

JESSIE:	Two word wonders? Yes, I was reading a little poetry book and it was talking about two word wonders and how they could be adjectives/noun or noun/verb. I read some to the students and we talked about the word types,
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	you know, describing words, naming words, doing words. Again the children categorised them and discovered the pattern. I guess they're exploring the guideline for how to do it successfully. They were so excited that they had broken the code, so they wanted to write their own two word wonders for their rainforest paintings. We did that and put them on display. Everyone thought they were lovely. The other thing they loved was syllable poems, just keep building - one syllable, two syllables, three syllables, four syllables, five syllables - and the kids find it really simple once they have broken the code. It's very good for their descriptive vocabulary.
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The activity described in Extract Four is significant for three reasons. First, talking about how texts work and pitching language as the object of study develops students' vocabulary and grammatical metalanguage, both important elements of linguistic design. Second, the active role students play in unlocking the unfamiliar, that is, discovering the linguistic code, involves them in constructing **conceptualisations** and *names* for word classes and *theorisations* of their functions. Rather than poetry being an instructional lesson, Jessie allows it to be a problem solving experience that draws on multiple knowledge processes. Third, the joint problem solving strengthens the community of practicing learners, whilst also catering for diversity as students pace themselves accordingly.

Jessie also plans for her students to engage with the knowledge process of **analysing**. Sophisticated picture books provide vicarious experiences of the environmental and social impact of deforestation. Understandings of the integration of visual and verbal text are developed and process drama enables the articulation of multiple interpretations.

Extract Five: Situated practice activity example four

JESSIE:	There are a number of books I used to get the children to draw on their text analyst reader roles. Two of the books that come to mind are "The Great Green Forest" by Paul Gerathy and there's another one about children from two different families, one from a family that supports conservation, and one from a family whose father is employed in the logging industry. The two children become friends. They walk through the rainforest and each child states their family's perspective about rainforests. For the child whose father is employed in the logging industry, logging is necessary for their survival, "That's the way it is, we need the timber." The child from the other family is saying, "It takes years to replenish the forest". In the story they get to this place where there's been this massive clearing. It is quite devastating to look at. We talked about the different perspectives and the people who might be working in the rainforest and those who want to preserve it. We talked about the author's and illustrator's purpose for producing the book, what their message is, why they are showing us the picture of the forest in this way and how they develop pictures and descriptions of the rainforest throughout the book. At first they show us the rainforest as it is, all the beautiful creatures. It had two pages that showed the devastation, to show impact. I remember Frederick* (pseudonym) noticing that. The pictures told the story as well. It takes years to build these beautiful rainforests up and takes seconds to knock them down. We used conscience alley to see how they felt about the book. Because they
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	didn't have personal experience with logging, they really relied on the story.
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By way of explanation, conscience alley is where an issue with competing viewpoints is identified and students allocate themselves to sides of an alleyway according to viewpoints. In relation to this issue, the sides of the alleyway represent pro-and anti-logging. A selected student then walks down the alleyway as those on the sides make strong statements supporting their viewpoint or retorting responses from the opposing side. This creates a forum where students operate as a functioning community of learners. As it transpires, the students bring a variety of analytical and critical perspectives for the benefit of all. This activity serves as a useful alternative to teacher-lead class discussions where vocal minorities tend to dominate.

Through teacher-student negotiation, it is decided the culminating task for the rainforest project is going to be an information narrative completed in groups of seven or eight. Jessie explains what happens next.

Extract Six: Overt instruction activity example one	
JESSIE:	We talked about the narratives they were working on, in particular, needing an orientation, some sort of problem, and a solution. I modelled writing a lot. We did it a little bit by little bit. We started with characters & I encouraged them to limit their characters. If you have too many, it will get too complicated. I modelled brainstorming with some characters, and then the setting.

Jessie's role changes to mediating explanations and focusing students on the significant textual features of narratives. Kalantzis and Cope (2005, p. 76) describe such practices as a "journey away from the lifeworld" to one "along the breath axis of expanding knowledge". The goal here is conscious awareness and control over content (Why are rainforests important and how do they operate?) and textual form (information narrative). The instructional work offers students a forum to talk about how texts work. Jessie effects this by introducing a metalanguage for text construction. Rather than the traditional propensity for didactic presentation and assessing students' work for the purpose of establishing rank, Jessie allows the students to work in groups where they enter into discussion, questioning and constructive criticism. This community of learners approach necessitates a lot of shared talk and sharing of expertise. Jessie also uses samples of their work-in-progress to build their metalanguage and understandings of the genre's significant textual features. This approach allows Jessie to publicly promote the range of expertise brought to the task by different students. It also means reading and writing tasks are matched to students' interests and ability levels.

The students decide to produce an e-book. Jessie enters another cycle of determining the students' **known experiences** with digital photography, scene construction and electronic text presentation (eg. font script selection, size, etc). After a phase of independent exploration, the students need guidance with the complex relationship between visuals, space and text design. Each group's ideas differ although the learning focus is still on the relationship between visual images and the written word. One group elects to explore synthetic media (backgrounds, speech bubbles and clip art found on PowerPoint), while another uses real props and takes digital photographs.

The third group takes digital photos of the rainforest backdrops they researched and painted earlier. Many interpersonal elements arise as students negotiate viewpoints and the division of labour. The students enter another cycle of **conceptualising** by *naming* and *theorising* the elements of visual design (long shot, extreme close up, top-down, bottom-up, background, foreground, framing, contrast, blending and continuity). Here they are the creators of their own knowledge. They are also critical of their own efforts, scrolling through the images, *functionally* and *critically analysing* each one. The students evidence conscious control and understanding of the relations of particular systems of knowledge and social practice. Finally each group **applies** their newly acquired skills *appropriately* and *creatively* to demonstrate how they design and carry out, in a reflective manner, new practices.

The students work through another mini-cycle of knowledge processes in their learning communities to upload the digital photos and **experience, conceptualise, analyse** and **apply** knowledge of PowerPoint, including file management, inserting and cropping images, and adding transitions, custom animation, voice narration and sound files. This is demanding multiliteracies work, but the students embrace the challenges. The students who struggle with reading and writing tasks bring their skills with iconic codes, visual, verbal and gestural literacies to the meaning making task. The students devote one month to their e-books.

This discussion about Jessie's approach to curriculum and pedagogy foregrounds the capacity of a diverse group of learners. The learning experiences are both meaningful and authentic and thus positively effect task involvement, and motivation to engage in reading, writing and design work (see Dyson, 1999). Parent interest peaks, and a celebration event for students, parents and community members is held. The two most cited comments from the parent group are "I can't believe young children did all of this" and "The children have been so motivated to learn". Moreover, the students develop the ability to communicate using new technologies and to critically interpret their developing knowledges.

Assessment

After the celebration event, Jessie elaborates upon the knowledge outcomes and how she assesses the students. Our discussion is recorded below as Extract Seven.

Extract Seven:	
JESSIE:	When I spoke to them it was their use of the media, the operation of the camera and the PowerPoint program. They were able to apply what they had learnt about the writing of narratives. Setting the scene out was something new and showing as much as you could because the rainforest is such a complex living system. It was amazing listening to them bring in the vocabulary we had explored in earlier lessons. That's what they got from going on the excursion, looking at all those books and art works.
BERYL:	Did you have criteria sheet for the narratives?
JESSIE:	We didn't do it in a written form, but we did discuss it. I'm not sure we could present that to these children in a written form.
BERYL:	So you negotiated the criteria with the children?
JESSIE:	Yes.
BERYL:	What else did you use for assessment?

JESSIE:	The narratives, the piece of art work to see if they understood the different layers of the rainforest. Plus I took anecdotal comments about their work and their group skills along the way.
BERYL:	What criteria were you looking for in their art work?
JESSIE:	That they could show the different levels of a rainforest, and the different types of vegetation that are typical of each, for example, the leaf litter at the bottom along the forest floor, the vines, showing the understorey, the canopy, and then the emergents at the top and at least one type of creature that lived at each level. At the bottom you have your little insects and mini beasts, in the middle you've got your sloths, and your lemurs and leopards and toucans are in the canopy.
BERYL:	Did they have to do a rainforest for a particular country/region, so they're not getting a mix-n-match effect?
JESSIE:	Yes, they had to get the flora and fauna right for the type of rainforest. It was funny, when we first went on our excursion to Mt Nebo, some of the students were expecting to see a toucan, and some sloths. There was an expectation that it was a tropical rainforest. So we just talked about what made a tropical rainforest, that it rained everyday, that it's evergreen, it's different because it's closer to the equator, that's why it's a different temperature and we're further away with our rainforests here, that's why the rainforests in Tasmania are cooler, not as steamy and hot, and the vegetation is not as dense.
BERYL:	Organisationally, how did you manage the assessment of their art work?
JESSIE:	I basically went around with individual conferencing and had a check list about what I wanted to see in the drawings. For the ESL kids it depended on how much English I thought they had. It wasn't only spoken and written assessment. I relied a lot on their visuals to find out more about what they knew. Sorbinnee (African student, pseudonym) took so much of it in. Her drawing showed that. She was quite fascinated by the fact that there were so many different types of plants & animals.

Jessie adopts a holistic and integrated approach to assessment. Assessment is for the purpose of tracking and recording students' engagement with the range of knowledge processes, in particular their capacity for **conceptualising, analysing** and **transforming**. Jessie's recount shows that she both understands and values students' different literacies and that she can teach in ways that enable her students to become aware of and control and exploit these differences. Thus, this recount shows that visual literacies can feature prominently in the ways students make sense of a topic under investigation. Such an explicit orientation parallels the vision for new learning as put forward by Kalantzis and Cope (2005) in their description of a transformative curriculum.

Conclusion

What is important is the recognition that the project's innovation did not rest with the inclusion of technology; rather innovation was founded on the integration of content from multiple key learning areas and pedagogies that developed in response to student diversity and the desire to value multiple ways of learning. This research documents the range of pedagogies that create space for the negotiation of a different social order, one where linguistically and culturally diverse students are reconstituted as

valuable contributors, and where their differences are actively recognised. It shows how pedagogy develops an epistemology of pluralism that provides access without culturally and linguistically minority students having to erase different subjectivities of learning. The core message, however, is not the verbatim adoption of this particular rainforest project. This recount and theorisation should not be seen as a plan of what teachers should do; rather a lens to better understand what one teacher is doing. This paper shows that the New London Group's Multiliteracies framework (1996) and the Designs for Learning framework (Kalantzis & Cope, 2005) are far from idealised models of how teaching and learning should occur in complex new times.

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